



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/886,559	06/21/2001	Craig M. Conrad	A1085	7270

21495 7590 11/01/2002  
CORNING CABLE SYSTEMS LLC  
P O BOX 489  
HICKORY, NC 28603

EXAMINER

HYEON, HAE M

ART UNIT	PAPER NUMBER
----------	--------------

2839

DATE MAILED: 11/01/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Applicant(s)

09/886,559

Applicant(s)

CONRAD ET AL.

Examiner

Hae M Hyeon

Art Unit

2839

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 September 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 06 September 2002 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Drawings*

1. The corrected or substitute drawings were received on September 6, 2002. These drawings are approved.

### *Claim Rejections - 35 USC § 103*

2. Claims 1-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mims, III in view of Hoffart et al (5,796,905), Hutton et al (6,381,390 B1) and Bonicel et al (5,379,363).

The instant invention is color-coding on a fiber optic ribbon. Figure 3 shows a color code for optical ribbon, which is basically a duplicate of resistor color-coding shown in the book by Mims, III. Regarding the number of colors used in coding and the shapes of coding are an obvious designer's choice since color coding using lines, dashes, dots, concentric circles, bands and the like are already known in the art. Regarding the method of making color-coded optical fiber ribbon, applying a covering, and color over optical fiber by extrusion method is also known in the art. Hoffart, Hutton, and Bonicel disclose various structures and method of color-coding applied to an optical fiber.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to apply color-coding of resistor as taught by Mims, III publication on an optical fiber or an optical ribbon cable using various structure of a color-coding as taught by Hoffart, Hutton, and Bonicel because color-coding would allow a user to easily identify various information about an optical fiber or an optical ribbon cable, which is the basic idea of color-coding. Also, assigning desired information to the color-coding is an obvious designer's choice.

*Response to Arguments*

3. Applicant's arguments filed on September 6, 2002 have been fully considered but they are not persuasive. The applicant argues that the present invention has first and second colored regions that respectively denote first and second characters of at least a two-character identifier for the optical ribbon serving to indicate an optical ribbon number. At least one of the colored region has a color selected to denote an identifying number pre-assigned to the optical ribbon and another of the colored regions has a color selected to indicate a type of the optical fibers contained in the optical ribbon. Also, the applicant argues that all the cited references do not disclose the above limitations. Furthermore, the applicant argues that the color-coding explained in the Mims, III publication is not analogous art since the color-coding of Mims, III deals exclusively with an electrical resistor and the electrical resistance and does not teach, disclose or suggest an optical fiber or a fiber optic cable. The examiner agrees with the applicant about the Mims, III publication not disclosing an optical fiber or a fiber optic cable. However, the main focus of the instant invention is a color-coding and not the structure of an optical fiber or a fiber optic cable. Both Mims, III publication and the present invention solve the same problem, identifying an element, using the same color-coding method.

Lastly, the structure of an optical fiber or a fiber optic cable disclosed in the present invention is well known in the art of an optical fiber. Also, the number of colors used in coding; the shapes of coding using lines, dashes, dots, concentric circles, bands and the like; and the method of making color-coded optical fiber ribbon, applying a covering and color over optical fiber by extrusion method are taught by Hoffart, Hutton, and Bonicel.

Figure 3 of the present invention show almost exact color-coding method as the color-coding method of a resistor explained in Mims, III publication. The only differences are that the present invention assigned optical fiber information to the color-coding while the resistor color-coding assigned resistor information and few different colors used coding. Assigning desire information to each color and using desired colors are an obvious designer's choice. All the inventors of the cited references assigned their own desired information to their color-coding.

Resistor Color-coding				The Present Invention Color-coding			
Color	1	2		Color	1	2	Fiber Type
BLACK	0	0		BLACK	0	0	
BROWN	1	1		BROWN	1	1	
RED	2	2		RED	2	2	
ORANGE	3	3		ORANGE	3	3	
YELLOW	4	4		YELLOW	4	4	
GREEN	5	5		GREEN	5	5	
BLUE	6	6		BLUE	6	6	
VIOLET	7	7		VIOLET	7	7	
GRAY	8	8		SLATE	8	8	
WHITE	9	9		WHITE	9	9	
GOLD	-	-	5%	ROSE	-	-	LEAF
SILVER	-	-	10%	AQUA	-	-	SMF
NONE	-	-	20%	NO COLOR	-	-	MMF

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hae M Hyeon whose telephone number is 703-308-4802. The examiner can normally be reached on Mon.-Fri. (8:30-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn D Feild can be reached on 703-308-2710. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Hae M Hyeon  
Examiner  
Art Unit 2839

hnh hnh  
October 29, 2002

*Hae Moon Hyeon*